

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	0	(dna with synthesis) and (bioreactor with array with gas)	USPAT	OR	OFF	2006/03/11 22:14
S2	45	(bioreactor with array and gas)	USPAT	OR	OFF	2006/03/11 19:43
S3	17	S2 and (spray\$ or vaporiz\$ or atomiz\$)	USPAT	OR	OFF	2006/03/11 19:43
S4	0	S2 and ((spray\$ or vaporiz\$ or atomiz\$) with substrate)	USPAT	OR	OFF	2006/03/11 19:44
S5	0	S2 and ((spray\$ or vaporiz\$ or atomiz\$) with microarray)	USPAT	OR	OFF	2006/03/11 19:44
S6	0	simultaneous\$ with (spray\$ or vaporiz\$ or atomiz\$ or aerosol\$) with microarray	USPAT	OR	OFF	2006/03/11 19:44
S7	0	(spray\$ or vaporiz\$ or atomiz\$ or aerosol\$) with microarray	USPAT	OR	OFF	2006/03/11 19:45
S8	9	(spray\$ or vaporiz\$ or atomiz\$ or aerosol\$) with microarray	US-PGPUB; USPAT	OR	OFF	2006/03/11 19:47
S9	38001	(spray\$ or vaporiz\$ or atomiz\$ or aerosol\$) with substrate	US-PGPUB; USPAT	OR	OFF	2006/03/11 19:46
S10	5334	S9 and (array or microarray)	US-PGPUB; USPAT	OR	OFF	2006/03/11 19:47
S11	3322	(spray\$ or vaporiz\$ or atomiz\$ or aerosol\$) with array	US-PGPUB; USPAT	OR	OFF	2006/03/11 19:47
S12	377	S11 and (dna or antibody)	US-PGPUB; USPAT	OR	ON	2006/03/11 19:47
S13	0	S12 and (simulatan\$ with (spray\$ or vaporiz\$ or atomiz\$ or aerosol\$) with array)	US-PGPUB; USPAT	OR	OFF	2006/03/11 19:47
S14	0	S12 and (simulatan\$ with (spray\$ or vaporiz\$ or atomiz\$ or aerosol\$))	US-PGPUB; USPAT	OR	OFF	2006/03/11 19:47
S15	42	S12 and (entire with (spray\$ or vaporiz\$ or atomiz\$ or aerosol\$))	US-PGPUB; USPAT	OR	OFF	2006/03/11 19:48
S16	1	("6573369").PN.	USPAT; USOCR	OR	OFF	2006/03/11 22:24
S17	3	(apply\$ with sample with printer) and (assay or dna or antibody)	USPAT	OR	ON	2006/03/11 22:50
S18	1	("6432360").PN.	USPAT; USOCR	OR	OFF	2006/03/11 22:50
S19	1	("6737024").PN.	USPAT; USOCR	OR	OFF	2006/03/11 23:01
S21	163	(printer same computer same software) and (assay or dna or antibody)	USPAT	OR	ON	2006/03/11 23:01

## EAST Search History

S22	46	(printer with computer with software) and (assay or dna or antibody)	USPAT	OR	ON	2006/03/11 23:22
S23	24	S22 and (array or microarray)	USPAT	OR	ON	2006/03/11 23:22
S24	108	S21 and (array or microarray)	USPAT	OR	ON	2006/03/11 23:22
S25	84	S24 not S23	USPAT	OR	ON	2006/03/11 23:22
S26	71	S25 and (dna or antibody)	USPAT	OR	ON	2006/03/11 23:38
S27	1	S26 and ((software or computer) with (drops or droplets))	USPAT	OR	ON	2006/03/11 23:23
S28	17	S26 and ((software or computer) with (position))	USPAT	OR	ON	2006/03/11 23:38
S29	134	S21 and (dna or antibody)	USPAT	OR	ON	2006/03/11 23:38
S30	39	S22 and (dna or antibody)	USPAT	OR	ON	2006/03/11 23:38
S31	7	S30 and ((software or computer) with (position))	USPAT	OR	ON	2006/03/11 23:40
S32	7	S30 and S31	USPAT	OR	ON	2006/03/11 23:41
S33	32	S30 not S31	USPAT	OR	ON	2006/03/12 00:27
S34	1	("5743960").PN.	USPAT; USOCR	OR	OFF	2006/03/12 01:27
S35	1	("6432360").PN.	USPAT; USOCR	OR	OFF	2006/03/12 01:27

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S179	58	waveguide same electric and (quantum adj dot)	USPAT	OR	ON	2006/03/09 15:18
S180	26	S179 not S178	USPAT	OR	ON	2006/03/09 15:18
S247	565	simultaneous adj assay	USPAT	OR	OFF	2006/03/09 15:18
S331	564	(micron same (spray or spraying or aerosol)) and array	USPAT	OR	OFF	2006/03/09 15:44
S332	59	S331 and (micron same orifice)	USPAT	OR	OFF	2006/03/09 15:46
S333	1	S332 and reagent	USPAT	OR	OFF	2006/03/09 15:38
S334	1	("5916524").PN.	USPAT; USOCR	OR	OFF	2006/03/09 15:32
S335	1	("5981733").PN.	USPAT; USOCR	OR	OFF	2006/03/09 15:37
S336	0	("L2andreagent").PN.	USPAT; USOCR	OR	OFF	2006/03/09 15:38
S337	1	S332 and reagent	USPAT	OR	OFF	2006/03/09 15:38
S338	1	S332 and reagent	USPAT	OR	ON	2006/03/09 15:38
S339	52	S332 and (chemical or biological)	USPAT	OR	OFF	2006/03/09 15:38
S340	27	S339 and (syringes or microsyringes or pumps or micropumps)	USPAT	OR	OFF	2006/03/09 15:39
S341	141	(micron same (spray or spraying or aerosol)) and (assay or biological or reagent) and (syringes or microsyringes or pumps or micropumps or piezo-printing)	USPAT	OR	OFF	2006/03/09 15:45
S342	17	S341 and (micron same orifice)	USPAT	OR	OFF	2006/03/09 15:53
S343	46	printheads and reagent	USPAT	OR	OFF	2006/03/09 16:05
S344	12	S343 and (spray or spraying or aerosol)	USPAT	OR	OFF	2006/03/09 15:54
S345	9	S342 and (orifice with size)	USPAT	OR	OFF	2006/03/09 15:58
S346	0	S344 and (orifice with size)	USPAT	OR	OFF	2006/03/09 15:58

## EAST Search History

S347	0	S344 and (orifice with microns)	USPAT	OR	OFF	2006/03/09 15:58
S348	28	S343 and (piezo-printing or piezo\$)	USPAT	OR	OFF	2006/03/09 15:59
S349	8	S348 and (orifice with size)	USPAT	OR	OFF	2006/03/09 16:01
S350	0	S348 and (orifice with micron)	USPAT	OR	OFF	2006/03/09 16:01
S351	2	S348 and (orifice with mm)	USPAT	OR	OFF	2006/03/09 16:02
S352	69	printhead and piezo\$ and reagent	USPAT	OR	OFF	2006/03/09 16:19
S353	14	S352 and (pumps or syringes or micropumps or microsyringes)	USPAT	OR	OFF	2006/03/09 16:09
S354	4	S353 and (orifice with size)	USPAT	OR	OFF	2006/03/09 16:06
S355	14	S352 and (orifice with size)	USPAT	OR	OFF	2006/03/09 16:15
S356	131	printhead and reagent	USPAT	OR	OFF	2006/03/09 16:09
S357	19	S356 and (pumps or syringes or micropumps or microsyringes)	USPAT	OR	OFF	2006/03/09 16:19
S358	8	S357 and (orifice with (size or diameter))	USPAT	OR	OFF	2006/03/09 16:09
S359	10	S352 and (orifice with diameter)	USPAT	OR	OFF	2006/03/09 16:15
S360	149	reagent and (print or printing) and (pumps or syringes or micropumps or microsyringes) and (orifice with (size or diameter or micron or mm or millimeters))	USPAT	OR	ON	2006/03/09 16:20
S361	67	S360 and (biological)	USPAT	OR	ON	2006/03/09 17:09
S362	48	microsyringes and (aerosol or spray or spraying) and printing	USPAT	OR	ON	2006/03/09 17:14
S363	6	S362 and orifice	USPAT	OR	ON	2006/03/09 17:10
S364	1005	syringes and (aerosol or spray or spraying) and printing	USPAT	OR	ON	2006/03/09 17:14
S365	6	S363 and (reagents or sample)	USPAT	OR	ON	2006/03/09 17:14
S366	6	S363 and (reagent or sample)	USPAT	OR	ON	2006/03/09 17:14
S367	695	S364 and (reagent or sample)	USPAT	OR	ON	2006/03/09 17:14

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S368	260	S367 and biological	USPAT	OR	ON	2006/03/09 17:14
S369	49	S368 and orifice	USPAT	OR	ON	2006/03/09 17:26
S370	0	(ink adj jet) and reagent and biological and orifice	USPAT	OR	ON	2006/03/09 17:26
S371	0	(ink adj jet) and reagent and biological and orifice	USPAT	OR	ON	2006/03/09 17:27
S372	139	(ink adj jet) and reagent and biological and orifice	USPAT	OR	ON	2006/03/09 17:29
S373	1	("5981733").PN.	USPAT; USOCR	OR	OFF	2006/03/09 17:28
S374	70	(ink adj jet) and reagent and biological and orifices	USPAT	OR	ON	2006/03/09 17:40
S375	42	S374 and ((orifice with (size or diameter)) or (spot with (size or diameter)))	USPAT	OR	ON	2006/03/09 17:32
S376	17	S375 and (spray or spraying and aerosol)	USPAT	OR	ON	2006/03/09 17:32
S377	15	(screen adj printing) and reagent and biological and orifices	USPAT	OR	ON	2006/03/09 17:45
S378	15	S377 and orifices	USPAT	OR	ON	2006/03/09 17:41
S379	2	S378 and (orifice with (size or diameter))	USPAT	OR	ON	2006/03/09 17:41
S380	0	S378 and (spot with (size or diameter))	USPAT	OR	ON	2006/03/09 17:41
S381	15	S378 and (aerosol or spray or spraying)	USPAT	OR	ON	2006/03/09 17:45
S382	91	(printing) and reagent and biological and orifices	USPAT	OR	ON	2006/03/09 17:48
S383	15	S381 and (aerosol or spray or spraying)	USPAT	OR	ON	2006/03/09 17:46
S384	4817	(printing) and biological	USPAT	OR	ON	2006/03/09 17:48
S385	1423	S384 and (spray or spraying or aerosol)	USPAT	OR	ON	2006/03/09 17:48
S386	1423	(printing) and biological and (spraying or spray or aerosol)	USPAT	OR	ON	2006/03/09 18:02
S387	67	S386 and orifices	USPAT	OR	ON	2006/03/09 17:49
S388	352	(printing) and biological and (vaporization or atomization or vaporiz\$)	USPAT	OR	ON	2006/03/09 18:03

## EAST Search History

S389	38	(printing) and biological and ((orifice or nozzle) with (aporization or atomization or vaporiz\$))	USPAT	OR	ON	2006/03/09 18:21
S390	25	S389 and ((nozzle or orifice) with (size or diameter or microns or millimeters))	USPAT	OR	ON	2006/03/09 18:14
S391	14	S390 and (syringes or microsyringes or pumps or micropumps)	USPAT	OR	ON	2006/03/09 18:20
S392	21	S389 and (syringes or microsyringes or pumps or micropumps)	USPAT	OR	ON	2006/03/09 18:22
S393	7	S392 not S391	USPAT	OR	ON	2006/03/09 18:20
S394	189	(printing) and biological and (orifice or nozzle) and (atomization or vaporiz\$)	USPAT	OR	ON	2006/03/09 18:31
S395	112	S394 and (syringes or microsyringes or pumps or micropumps)	USPAT	OR	ON	2006/03/09 18:32
S396	5	S395 and ((printing) same (atomization or vaporiz\$))	USPAT	OR	ON	2006/03/09 18:25
S397	1	("6221653").PN.	USPAT; USOCR	OR	OFF	2006/03/09 18:26
S398	0	S397 and reagent and sample and (print or printing)	USPAT	OR	OFF	2006/03/09 18:26
S399	0	S397 and reagent and sample	USPAT	OR	OFF	2006/03/09 18:26
S400	1	S397 and reagent and sample and (print or printing)	USPAT	OR	ON	2006/03/09 18:27
S401	109700	(printing) and biological (atomization or vaporiz\$)	USPAT	OR	ON	2006/03/09 18:52
S402	39248	S401 and (syringes or microsyringes or pumps or micropumps)	USPAT	OR	ON	2006/03/09 18:42
S403	899	S402 and ((print\$ same biological) or (print\$ same (atomization or vaporiz\$)))	USPAT	OR	ON	2006/03/09 18:41
S404	70	S403 and ((atomiz\$ or vaporiz\$) with (syringes or microsyringes or pumps or micropumps))	USPAT	OR	ON	2006/03/09 18:34
S405	689	S402 and (print\$ same (atomization or vaporiz\$))	USPAT	OR	ON	2006/03/09 18:42
S406	621	S405 not S404	USPAT	OR	ON	2006/03/09 18:42

## EAST Search History

S407	67	S406 and ((syringes or microsyringes or pumps or micropumps) same (vaporiz\$ or atomiz\$))	USPAT	OR	ON	2006/03/09 18:52
S408	67	S407 not "L746" and ((syringes or microsyringes or pumps or micropumps) same (vaporiz\$ or atomiz\$))	USPAT	OR	ON	2006/03/09 18:43
S409	67	S407 not S404	USPAT	OR	ON	2006/03/09 18:43
S410	352	(printing) and biological and (atomization or vaporiz\$)	USPAT	OR	ON	2006/03/09 18:52
S411	23	S410 and ((syringes or microsyringes or pumps or micropumps) same (vaporiz\$ or atomiz\$))	USPAT	OR	ON	2006/03/09 18:55
S412	183	S410 and (syringes or microsyringes or pumps or micropumps)	USPAT	OR	ON	2006/03/09 18:55
S413	95	S410 and (syringes or microsyringes or pumps or micropumps)	USPAT	OR	OFF	2006/03/09 19:13
S414	0	(dispensor with (syringes or microsyringes)) and (reagent or sample) and (assay or reaction)	USPAT	OR	OFF	2006/03/09 19:14
S415	0	(dispensor same (syringes or microsyringes)) and (reagent or sample) and (assay or reaction)	USPAT	OR	OFF	2006/03/09 19:14
S416	0	(dispensor same (micropumps)) and (reagent or sample) and (assay or reaction)	USPAT	OR	OFF	2006/03/09 19:15
S417	5	((micropumps) with print\$) and (reagent or sample) and (assay or reaction)	US-PGPUB; USPAT	OR	OFF	2006/03/09 19:18
S418	482	((micropumps)) and (reagent or sample) and (assay or reaction)	US-PGPUB; USPAT	OR	OFF	2006/03/09 19:18
S419	5	(microsyringes with (reagent or sample)) and (assay or reaction)	US-PGPUB; USPAT	OR	OFF	2006/03/09 19:20
S420	13	(microsyringes same (reagent or sample)) and (assay or reaction)	US-PGPUB; USPAT	OR	OFF	2006/03/09 19:22
S421	8	S420 not S419	US-PGPUB; USPAT	OR	OFF	2006/03/09 19:21
S422	6	((microsyringe adj pumps) same (reagent or sample)) and (assay or reaction)	US-PGPUB; USPAT	OR	OFF	2006/03/09 19:24

## EAST Search History

S42 3	58	((microsyringe adj pumps) and (reagent or sample)) and (assay or reaction)	US-PGPUB; USPAT	OR	ON	2006/03/09 19:41
S42 4	22	S423 and (aerosol\$ or vaporiz\$ or atomiz\$ or spray\$)	US-PGPUB; USPAT	OR	ON	2006/03/09 19:28
S42 5	36	S423 not S424	US-PGPUB; USPAT	OR	ON	2006/03/09 19:29
S42 6	1	("5106650").PN.	USPAT; USOCR	OR	OFF	2006/03/09 19:42
S42 7	1	("5981733").PN.	USPAT; USOCR	OR	OFF	2006/03/09 19:43
S42 8	1	("6450189").PN.	USPAT; USOCR	OR	OFF	2006/03/09 19:45
S42 9	1	("7008037").PN.	USPAT; USOCR	OR	OFF	2006/03/09 19:46
S43 0	1	("6689323").PN.	USPAT; USOCR	OR	OFF	2006/03/09 19:46
S43 1	1	("6884580").PN.	USPAT; USOCR	OR	OFF	2006/03/09 19:48
S43 2	1	("6852560").PN.	USPAT; USOCR	OR	OFF	2006/03/09 19:49
S43 3	3055	spray adj guns	USPAT	OR	OFF	2006/03/09 19:49
S43 4	33	S433 and reagent	USPAT	OR	OFF	2006/03/09 19:52
S43 5	2	((printhead or printer or printing) same (micropumps)) and reagent and biological	USPAT	OR	OFF	2006/03/09 19:56
S43 6	2	((printhead or printer or printing or print) same (micropumps)) and reagent and biological	USPAT	OR	OFF	2006/03/09 19:56
S43 7	8	((printhead or printer or printing or print) same (micropumps)) and biological	USPAT	OR	OFF	2006/03/09 19:59
S43 8	5	((printhead or printer or printing or print) same (micropumps)) and reagent	USPAT	OR	OFF	2006/03/09 20:28
S43 9	1	("5585069").PN.	USPAT; USOCR	OR	OFF	2006/03/09 20:23
S44 0	15	((printhead or printer or printing or print) same (piston)) and reagent	USPAT	OR	OFF	2006/03/09 20:34
S44 1	329	((printhead or printer or printing or print) and (piston)) and reagent	USPAT	OR	OFF	2006/03/09 21:07
S44 2	16	((printhead or printer or printing or print) same (plunger)) and reagent	USPAT	OR	OFF	2006/03/09 20:48



## EAST Search History

S44 3	127	S441 and biological	USPAT	OR	OFF	2006/03/09 20:47
S44 4	8	((printhead or printer or printing or print) same (plungers)) and reagent	USPAT	OR	OFF	2006/03/09 21:01
S44 5	4	((printhead or printer or printing or print) same (pistons)) and reagent	USPAT	OR	OFF	2006/03/09 21:02
S44 6	0	(plurality with microsyringes) and reagent	USPAT	OR	OFF	2006/03/09 21:03
S44 7	17	(plurality with micropumps) and reagent	USPAT	OR	OFF	2006/03/09 21:03
S44 8	74	((printhead or printer or printing or print) and (pistons)) and reagent	USPAT	OR	OFF	2006/03/09 21:07
S44 9	3	((printhead or printer or printing or print) and (microsyringes)) and reagent	USPAT	OR	OFF	2006/03/09 21:43
S45 0	2650	thermal with inkjet	USPAT	OR	OFF	2006/03/09 21:43
S45 1	129	S450 and (plunger or piston)	USPAT	OR	OFF	2006/03/09 21:43
S45 2	7	S451 and (reagent or biological or assay)	USPAT	OR	OFF	2006/03/09 21:46
S45 3	3	((plunger or plunger-type) with (ink with jet)) and (reagent or biological or assay)	USPAT	OR	ON	2006/03/09 21:49
S45 4	9	((plunger or plunger-type) same (ink with jet)) and (reagent or biological or assay)	USPAT	OR	ON	2006/03/09 21:49
S45 5	6	S454 not S453	USPAT	OR	ON	2006/03/09 21:50